

REMARKS:

I. STATUS OF THE CLAIMS

In the outstanding Office Action, claims 1-33 were rejected.

In accordance with the foregoing, claims 1, 31, 32 and 33 have been amended, claims 5 and 7 have been cancelled without prejudice. Claims 2 and 3 remain cancelled. Thus, claims 1, 4, 6 and 8-33 are pending and under consideration. No new matter is being presented and approval and entry are respectfully requested.

II. REJECTION UNDER 35 U.S.C. §102(e):

Claims 1, 4, 6, 8-20, 22 and 29-33 were rejected as being anticipated by U.S. Publication No. 2004/0064211 (Mateau et al.).

Applicants respectfully traverse this rejection for at least the following reasons.

Mateau et al. is directed to designing a tooling assembly, such as a mold or a die. In Mateau et al., size of dies, cavity, core, etc., are examined based on shape of a finished part for designing the tooling assembly (see, paragraphs 22, 23 and 25). That is, Mateau et al. is limited to a design process of molds and dies that produces a graphical output based on information stored in a database continually changing to apply new information to subsequently designed molds (see, paragraph 16).

Independent claim 1 as amended recite that the present invention is directed to a design support system for supporting design of "a manufacturing line for an electronic device where the manufacturing is constituted by combination of a plurality of element types of manufacturing cells". The design support system as recited in claim 1 includes, "determining said element types or specifications of said element types based on said element types selected by said selection section" in accordance with stored "determination information in association with said element types". Although the above comments are specifically directed to claim 1, it is respectfully submitted that claims 31 and 32 also recite similar features that are distinguishable over Mateau et al.

Independent claim 31 recites that the determination information in association with said element types of manufacturing cells for the electronic device is at least one of "a conditional expression having information pertaining to another constituent element or element type complying with the selected element type, ... and an incidental expression having information to

be used for preventing reflection of information about a specific constituent element or element type in response to the selected element type". Independent claims 1 and 32 also recite similar features that are distinguishable over Mateau et al.

Independent claim 33 also recites, "providing stored selectable information of element types in relation to a manufacturing line of an electronic device" and "outputting information of the manufacturing line of the electronic device responsive to the received selection in accordance with the stored information of the element types", where "the stored information of the element types is associated with conditions defining a relationship of the element types to a constituent element or other element types". This, for example, enables the present invention to reduce time and cost associated with designing a manufacturing line for an electronic device such as, a sensor device.

It is respectfully submitted that Mateau et al. does not teach or suggest supporting design of "a manufacturing line for an electronic device where the manufacturing is constituted by combination of a plurality of element types of manufacturing cells ", as recited in independent claims 1, 31 and 32.

Therefore, it is submitted that the independent claims 1, 31, 32 and 33 are patentably distinguishable over Mateau et al.

For at least the above-mentioned reasons, claims depending from independent claims 1, 31 and 32 are patentably distinguishable over Mateau et al. The dependent claims are also independently patentable. For example, as recited in claim 4, "said element type database stores manufacturing steps (processes and devices) employed in said manufacturing line, in association with element types relevant to said manufacturing steps". Mateau et al. does not teach or suggest, a design support system for supporting design of a manufacturing line formed by a combination of elements types of manufacturing cells for an electronic device where "manufacturing steps (processes and devices) employed in said manufacturing line [are stored] in association with element types relevant to said manufacturing steps".

Therefore, it is respectfully submitted that the rejection of claims 1, 4, 6, 8-20, 22 and 29-33 is overcome.

III. REJECTION UNDER 35 U.S.C. §103(a):

Claim 21 was rejected as being unpatentable over the combination of Mateau et al. and U.S. Patent No. 5,777,876 (Beauchesne et al.), and claims 23-28 were rejected as being

unpatentable over the combination of Mateau et al. and U.S Publication No. 2004/0158340 (Fischer et al.).

Applicants respectfully traverse this rejection for at least the following reasons.

The arguments presented above in relation to independent claim 1 are incorporated herein to address the rejection of claims 21 and 23-28, which depend from claim 1.

Beauchesne et al. is directed to a method of manufacturing and assembling customized hot runner systems using a wide selection of standard manifold plates, nozzles, etc. Beauchesne et al. includes a database system having a manufacturing factory environment which integrates a plurality of manufacturing processes used to control the manufacture of a number of electronic board products on a plurality of manufacturing lines (see, col. 3, lines 6-30). That is, Beauchesne et al. is limited to linking parameters being used by one or more other board products and copying the linked parameters for a new product.

Fischer et al. relates to an injection mold system to interactively specify and design a system using a mix of parameters. However, Fischer et al. is limited to an injection molding system including a business subsystem (14) that processes various bills and maintains cost and status information (see, paragraph 70, 77, 78 and FIG. 1).

Claim 21 recites a design support system for a manufacturing line of an electronic apparatus to "extract and arrange said plurality of pieces of information about said manufacturing line under arbitrary conditions on the basis of details of said information about said manufacturing line" including "indicating said extracted and arranged information about said manufacturing line as a candidate for said manufacturing line".

Claim 23 recites, "exchanging data with an external information processing system" for supporting a design of a manufacturing line.

Claim 24 recites that the design support system of the present invention includes, "managing manufacturing costs of said manufacturing line" and outputting "said information about said manufacturing line prepared by said manufacturing line information preparation section and said information about manufacturing costs of said manufacturing line acquired by said data exchange section in such a manner that said pieces of information can be compared with each other".

Claims 25 and 26 recite, "said external information processing system is a purchasing system, and said data exchange section transfers, to said purchasing system, said information

about said manufacturing line prepared by said manufacturing line information preparation section”.

Moreover, claim 27 recites that the manufacturing line information preparation section “computes at least the number of components required to constitute said manufacturing line as information about said manufacturing line on the basis of said information about components constituting said element types”, and claim 28 recites that “said data exchange section transfers at least the number of components required to constitute said manufacturing line to said external information processing system”.

Mateau et al., Beauchesne et al. and Fischer et al., either alone or in combination, do not teach or suggest a design support system for supporting design of “a manufacturing line for an electronic device” including various features recited in claims 21 and 23-28.

Therefore, it is respectfully submitted that the rejection of claims 21 and 23-28 is overcome.

CONCLUSION:


There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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